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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,015	10/24/2003	William C. Phillips	1023-292US01	9353
28863 7590 12/09/2008 SHUMAKER & SIEFFERT, P. A. 1625 RADIO DRIVE SUITE 300 WOODBURY, MN 55125				
EXAMINER HELLER, TAMMIE K				
ART UNIT 3766		PAPER NUMBER		
NOTIFICATION DATE 12/09/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pairedocketing@ssiplaw.com

Office Action Summary

Application No.

10/693,015

Applicant(s)

PHILLIPS ET AL.

Examiner

TAMMIE HELLER

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-9,11-13,15-20,22-24 and 26-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,4,6-9,11-13,15-20,22-24 and 26-40 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/17/08
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed on September 4, 2008 has been received and considered. By this amendment, claims 1, 6-8, 19, 23, 35, and 36 are amended, claims 5 and 25 are cancelled, and claims 1, 2, 4, 6-9, 11-13, 15-20, 22-24, and 26-40 are now pending in the application.

Information Disclosure Statement

2. The information disclosure statement(s) (IDS) submitted on June 17, 2008 has/have been acknowledged and is/are being considered by the Examiner.

Claim Rejections - 35 USC § 112

3. In view of the Applicant's arguments presented in the response filed on September 4, 2008, the Examiner is withdrawing the rejection against claims 39 and 40 under 35 USC 112, second paragraph, which was made in the last Office Action.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, necessitated by amendment.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4, 6-9, 12, 13, 17, 19, 20, 22-24, 26, 27, 29, 30, 33, and 35-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsukamoto et al. (U.S. Patent No. 5,819,163), herein Tsukamoto. Regarding claims 1, 7, 19, 23, 35-37, 39, and 40, Tsukamoto discloses a portable communication device 50 including a first housing member 53, a first circuit board 60 within the first housing member, an internal antenna 66 mounted within the first housing member, a second circuit board 70 disposed over the first circuit board within the first housing member, a battery bay 111 that extends into the device, and a second housing member 52 disposed over the second circuit board to substantially enclose the first and second circuit boards, wherein the first housing member includes an area that defines the battery bay adjacent the first circuit board (see Figures 5 and 7-9). It can be seen from Figure 5 that internal antenna 66 is raised from circuit board 60 such that when first housing member 53 is in place, the antenna 66 defines an aperture between the first circuit board 60 and housing member 53. Furthermore, when fully assembled, battery bay 111 extends at least partially into and in substantial alignment with the aperture.
7. Regarding claims 2 and 20, a load is presented to an antenna when batteries are placed within its magnetic field. The Examiner takes the position that it can be seen from Figures 5 and 7-9 that the battery 55 is located within the magnetic field of the antenna 66. Therefore, the placement of the battery in Tsukamoto places a load on the internal antenna.

8. Regarding claims 4 and 22, the Examiner takes the position that the battery bay 111 of Tsukamoto is sized to accommodate AAA batteries.
9. Regarding claims 6 and 24, it can be seen from Figure 7 of Tsukamoto that the first housing member has an access opening.
10. Regarding claims 8 and 26, Tsukamoto discloses that the internal antenna is mounted to the first circuit board on a side of the first circuit board opposite the second circuit board and a display is mounted to the second circuit board on a side of the second circuit board opposite the first circuit board (see Figures 3 and 5).
11. Regarding claims 9, 27, and 38, Tsukamoto discloses that the first circuit board includes telemetry circuitry and the second circuit board includes control circuit for the display and telemetry circuit, the programmer further comprising an electrical interface between the first and second circuit boards (see Figure 6, col. 4, ln. 47-67, and col. 5, ln. 15-25).
12. Regarding claims 12 and 29, Tsukamoto discloses that the display is a liquid crystal display (see col. 5, ln. 21).
13. Regarding claims 13 and 30, Tsukamoto discloses that an external antenna 106 may be coupled to the device via a cable (see Figure 12).
14. Regarding claims 17 and 33, it can be seen from Figure 9 of Tsukamoto that the internal antenna 66 comprises a loop-like shape around its perimeter.
15. Claims 1, 2, 4, 6-9, 11-13, 17-20, 22-24, 26-30, and 33-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Fang et al. (U.S. Patent No. 6,678,563, cited by Applicant), herein Fang. Regarding claims 1, 6, 19, 23, 24, 26, 35-37, 39, and 40,

Fang discloses a programmer 26 comprising a first housing member 46, a first circuit board 40 within the first housing member, an internal antenna mounted within the first housing member, a second circuit board 38 disposed over the first circuit board within the first housing member, a battery bay 30, and a second housing member 44 disposed over the second circuit board to substantially enclose the first and second circuit boards, wherein the first housing member includes an area that defines the battery bay adjacent the first circuit board (see Figure 4). Fang discloses that the internal antenna is formed as a loop and therefore defines an aperture within the center of said loop (see col. 11, ln. 37-58).

16. Regarding claims 2 and 20, a load is presented to an antenna when batteries are placed within its magnetic field. The Examiner takes the position that it can be seen from Figure 4 that the battery is located within the magnetic field of the antenna (indicated at element 206). Therefore, the placement of the battery in Fang places a load on the internal antenna.

17. Regarding claims 4 and 22, the Examiner takes the position that the size of battery 30 suggests that the battery bay of Fang is sized to accommodate AAA batteries.

18. Regarding claim 7, Fang discloses that the internal antenna is displaced from the first circuit board and coupled to the first circuit board via a connector (see col. 11, ln. 37-58).

19. Regarding claims 8 and 26, Fang discloses that the internal antenna is mounted to the first circuit board on a side of the first circuit board opposite the second circuit

board, and a display is mounted to the second circuit board on a side of the second circuit board opposite the first circuit board (see Figure 4).

20. Regarding claims 9, 27, and 38, Fang discloses that the first circuit board includes telemetry circuitry and the second circuit board includes control circuitry to control the display and the telemetry circuitry, the programmer further comprising an electrical interface between the first and second circuit boards (see col. 8, ln. 64-col. 9, ln. 23).

21. Regarding claims 11, 18, 28, and 34 Fang discloses that the medical device is an implantable neurostimulator (see col. 2, ln. 5-30).

22. Regarding claims 12 and 29, Fang discloses that the display is a liquid crystal display (see 8, ln. 67).

23. Regarding claims 13 and 30, Fang discloses an external antenna (see col. 9, ln. 20-21).

24. Regarding claims 17 and 33, Fang discloses that the internal antenna comprises a loop-like shape (see col. 11, ln. 37-58).

Claim Rejections - 35 USC § 103

25. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

26. Claims 11, 18, 28, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto, cited above. Tsukamoto discloses the invention substantially as claimed, but fails to disclose that the portable communication device 50 is utilized to communicate with an implantable neurostimulator. The Examiner takes

Official Notice that it is well known in the medical device to utilize a portable communication device, such as that disclosed by Tsukamoto, to communicate with an implantable neurostimulator as these devices are multi-functional and have well established communication protocols. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the portable communication device 50 of Tsukamoto to communicate with an implantable neurostimulator in order to facilitate communication over well established communication protocols. Applicant's attention is directed to U.S. Patent Application Publication No. 2002/0002326 to Causey, III et al., paragraphs 20 and 118, which outline the utilization of a portable communication device for transmitting signals to and receiving signals from an implantable neurostimulator.

27. Claims 15 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto, cited above. Tsukamoto discloses the invention substantially as claimed, but fails to disclose that the internal antenna comprises a plastic frame would with conductive winding. The Examiner takes Official Notice that it is well known in the antenna art to construct an internal antenna from a plastic frame wound with conductive winding in order to enhance the noise immunity of the antenna. The conductive winding is wound such that the direction of the helix determines the type of signal (either right or left-handed) the antenna is able to receive. The antenna consequently only receives the signals for which it is designed and noise from other sources is eliminated. Therefore, it would have been obvious to one of ordinary skill in the antenna art to construct the antenna of Tsukamoto from a plastic frame wound with

conductive winding in order to further increase the noise immunity of the antenna. Applicant's attention is directed to U.S. Patent No. 3,683,389 to Hollis, Figure 1, where the coil/loop antennas 32 and 36 are wound on dielectric frame 28.

28. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto, cited above. Tsukamoto discloses the invention substantially as claimed, but fails to disclose that the internal antenna comprises copper braid shielding substantially surrounding the plastic frame and the conductive winding. The Examiner takes Official Notice that it is well known in the antenna art to use copper-braiding as a shielding mechanism for antennas to shield the electromagnetic field of the antenna and reduce electrical and electromagnetic interference caused by the antenna. Therefore, it would have been obvious to one of ordinary skill in the art to shield the antenna of Tsukamoto using copper braiding in order to reduce electrical and electromagnetic interference and reduce antenna loading during transmission and reception. Applicant's attention is directed to U.S. Patent No. 2,203,517 to Beggs where shield 28 surrounds the loop antenna 3 wound on dielectric frame 27.

29. Claims 15 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang, cited above. Fang discloses the invention substantially as claimed, but fails to disclose that the internal antenna comprises a plastic frame wound with conductive winding. The Examiner takes Official Notice that it is well known in the antenna art to construct an internal antenna from a plastic frame wound with conductive winding in order to enhance the noise immunity of the antenna. The

conductive winding is wound such that the direction of the helix determines the type of signal (either right or left-handed) the antenna is able to receive. The antenna consequently only receives the signals for which it is designed and noise from other sources is eliminated. Therefore, it would have been obvious to one of ordinary skill in the antenna art to construct the antenna of Fang from a plastic frame wound with conductive winding in order to further increase the noise immunity of the antenna. Applicant's attention is directed to U.S. Patent No. 3,683,389 to Hollis, Figure 1, where the coil/loop antennas 32 and 36 are wound on dielectric frame 28.

30. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang, cited above. Fang discloses the invention substantially as claimed, but fails to disclose that the internal antenna comprises copper braid shielding substantially surrounding the plastic frame and the conductive winding. The Examiner takes Official Notice that it is well known in the antenna art to use copper-braiding as a shielding mechanism for antennas to shield the electromagnetic field of the antenna and reduce electrical and electromagnetic interference caused by the antenna. Therefore, it would have been obvious to one of ordinary skill in the art to shield the antenna of Fang using copper braiding in order to reduce electrical and electromagnetic interference and reduce antenna loading during transmission and reception. Applicant's attention is directed to U.S. Patent No. 2,203,517 to Beggs where shield 28 surrounds the loop antenna 3 wound on dielectric frame 27.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **TAMMIE HELLER** whose telephone number is (571)272-1986. The examiner can normally be reached on Monday through Friday from 7am until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/
Supervisory Patent Examiner, Art Unit 3766

/Tammie Heller/
Examiner, Art Unit 3766